In the claims:

For the Examiner's convenience, all pending claims are presented below with changes shown.

1.   (Currently Amended) A device, comprising:

a scheduler in an access point to ~~schedule variable length packets for transmission based on transmission times for different packet lengths to transmit on each of M spatial channels to mobile stations by filling the M spatial channels for traffic on M stations at a time instant,~~ <u>provide a schedule of packets to transmit on each of M spatial channels to M stations during a time interval by arranging variable length packets to fill each of the M spatial channels during the time interval based on the transmission times for different packet lengths of each of the variable length packets,</u>

where M is a constant less than or equal to a number of antennas at the access point.

2.   (Original)   The device of claim 1 further including adaptive antenna arrays used in conjunction with a beam forming algorithm to achieve spatial diversity and implement Spatial-Division Multiple-Access (SDMA), wherein the adaptive antenna array changes beam weights based on the schedule.

3.   (Original)   The device of claim 1 wherein the scheduler in the downlink provides the schedule of transmission intervals for different mobile stations.

4.   (Original)   The device of claim 1 wherein the schedule accounts for traffic information to the mobile stations based on packet size.

5.   (Original)   The device of claim 1 wherein the schedule accounts for traffic information to the mobile stations based on queue size.

6.   (Original)   The device of claim 1 wherein the schedule accounts for traffic information to the mobile stations based on priority.

7.   (Original)   The device of claim 1 wherein the access point sends multiple schedules in a protected time interval to the mobile stations.

8.   (Original)   The device of claim 7 wherein a first schedule of the multiple schedules is sent to a first mobile station and a second schedule is sent to a second mobile station.

9.   (Original)   The device of claim 1 wherein the access point fills spatial channels using the data packets buffered for all the mobile stations.

10-25. (Canceled)

26.   (Currently Amended) A method for a Medium Access Control (MAC) protocol, comprising:

~~scheduling variable length packets for transmission in an access point based on transmission times for different packet lengths to transmit on s each of M spatial channels to mobile stations by filling the M spatial channels for traffic on M stations at a time instant,~~ providing a schedule of packets to transmit on each of M spatial channels to M stations during a time interval by arranging variable length packets to fill each of the M spatial channels during the time interval based on the transmission times for different packet lengths of each of the variable length packets,

where M is a constant less than or equal to a number of antennas at the access point

27.   (Original)   The method of claim 26, further including: retrieving antenna resources in the access point to form spatial channels developed on the fly for a waiting mobile station.

28-29. (Canceled)